UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,197	12/31/2003	Chang-Seob Kim	66249/L550	6732

23363 7590 10/13/2010
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER	
LAIOS, MARIA J	

ART UNIT	PAPER NUMBER
1727	

MAIL DATE	DELIVERY MODE
10/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,197	KIM ET AL.	
	Examiner	Art Unit	
	MARIA J. LAIOS	1727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,8,12,14 and 20-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the after final submitted 9/28/2010. Claims have not been amended. Currently claims 1-3, 5-6, 8, 12, 14, 20-22, 24-28 are pending.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

3. Applicant has submitted a draft version of Korean Patent Application 10-2003-0010410 on 9/28/2010. This along with the evidence provided on 8/26/2010 is sufficient to overcome the Akoin et al. reference. The original filed declaration of 8/26/2010 is sufficient. The declaration filed on 8/26/2010 under 37 CFR 1.131 is sufficient to overcome the Akoin et al. reference.

Claim Rejections - 35 USC § 112

4. Claims 1-3, 5, 6, 8, 12, 20-22, 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The word “type” makes the battery indefinite (MPEP 2173.05(b)).

Claim Rejections - 35 USC § 103

5. Claims 1-3, 8, 14, 20 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narukawa et al. (US 5,834,1344) in view of Vourlis (US 6,054,233).

As to claims 1-3, 8, 14, and 20, Narukawa et al. discloses a lithium jelly roll battery unit (Figure 6-disclsoes a wound electrode unit) comprising: housing (200); cap assembly (figure 7-14) connected to an upper portion of the can and having a cap plate and an electrode terminal connected to the cap plate through a terminal through hole formed in the cap plate and having a gasket (243) at an outer surface for insulation form the cap plate (Figures 7-14); a negative electrode plate 230) having a current collector with a first electrode tab and a negative active material coated on a least one surface of the negative electrode current collector (Figure 5); a positive electrode plate having a positive current collector with an electrode tab, and a positive active material layer coated on at least on surface of the positive electrode current collector (Figure 4); and a separator that is interposed between the negative and positive electrodes. The positive electrode tab (222) is formed by folding a cut portion of an uncoated area of the positive electrode current collector (224) toward an upper edge of the electrode (Figure 8). Narukawa et al. does not explicitly state that the cut portion begins at the lower edge of the current collector and extends along more than half the width; but Narukawa et al. teaches that the tab can be cut to size (col. 12 lines 42-44). Therefore one of ordinary skill in the art at the time of the invention would be known to lengthen the tab such that it extends from the bottom edge of the current collector to more than halfway the width of the current collector electrode for a battery requiring a specific tab size.

Narukawa et al. discloses the cut tab of the positive electrode is located on the outer side of the electrode assembly (Figures 6 and 8) but does not disclose that the tab formed by folding is located substantially in the center of the battery electrode unit, at the innermost layer of the electrode unit. However this would be within the skill of an ordinary artisan start the winding electrode unit with the folded portion since this would apply pressure to the folded area and since there is a finite number of predictable solutions. [A] person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely that product [was] not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103." KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).<

Narukawa et al. discloses one tab at the center of the electrode unit and the other at he outer most layer (Figure 6) but does not show that the tab partially overlap each other. Narukawa does not explicitly disclose the first electrode tab partially overlapping and facing the second electrode tab. However, Narukawa does disclose the tab to be formed in any portion of the plate (col. 10 lines 60-61). Vourlis discloses a wound electrode assembly with a tab located substantially in the center of the electrode unit and the second electrode tab partially overlapping and facing the other electrode tab (Figure 9). Therefore it would have been obvious to place the electrode tabs of the battery unit of Narukawa in a location where, upon wind up of the jelly roll unit, the tabs partially overlap each other because it has been held that rearranging parts of an

invention involves only routine skill in the art (In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)). See MPEP 2144.04 (VI). Furthermore it is noted that a tri-functional electrode as defined by the applicant is the current collector, the tab, and the active material on the current collector.

Claims 24-26, by including all of the structural elements of claims 1 and 2, the apparatus is capable of performing the functions recited in claims 24-26. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997) "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (*MPEP 2114).*

6. Claims 5, 6, 12, 21, 22, 27 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Narukawa et al. (US 5,834,133) and Vourlis (US 6,054,233) as applied to claims 1-3, 8, 14, 20 and 24-26 above, and further in view of Narukawa et al. (U.S. Patent Number 5,508,122 hereinafter '122).

The disclosures of Narukawa et al. and Vourlis have been discussed above and are incorporated herein.

Narukawa et al. do not teach the use of an insulating tape adhered to either surface of the first or second electrode tab.

Narukawa et al.'122 teach that the lead connecting regions, or electrode tabs, are covered with insulating tape (column 1, lines 14-16, as applied to claims 5, 12, and 21). Narukawa et al. '122 teach that each electrode tab positioned at the outmost has insulating tape on the side toward the center of the spiral electrode, or between the inner and outer surfaces of the first and second electrode tab (column 1, lines 56-59, as applied to claims 6, 22, 27, and 28).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the insulating tape of Narukawa et al. '122 in the battery of Narukawa et al. The insulative tape is used to prevent an internal short circuit (column 1, lines 15-16). Having the insulating tape positioned between the inner and outer surface of the first and second electrode tab, would assure that each lead will not touch another electrode (column 1, lines 59-60).

Furthermore, by including all of the structural elements of claim, the apparatus is capable of performing the functions recited in claims 27 and 28. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997) "[A]pparatus claims cover what a device is, not what a device does." Hewlett-

Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (*MPEP 2114).*

Response to Arguments

7. Applicant's arguments, see after final, filed 9/28/2010, with respect to the rejection(s) of claim(s) 1-3, 5-6, 8, 12, 20-22, 24-26 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA J. LAIOS whose telephone number is (571)272-9808. The examiner can normally be reached on 11am-7pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. J. L./
Examiner, Art Unit 1727

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1727